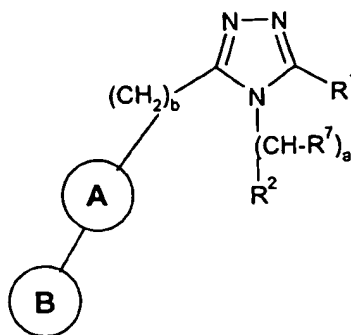


## CLAIMS:

1. A compound of formula (I),



(I)

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or a pharmaceutically acceptable salt or solvate thereof, wherein

R<sup>1</sup> represents C<sub>1</sub>-C<sub>8</sub> alkyl, -(CH<sub>2</sub>)<sub>c</sub>-[C<sub>3</sub>-C<sub>8</sub> cycloalkyl]-, -(CH<sub>2</sub>)<sub>c</sub>-W or -(CH<sub>2</sub>)<sub>c</sub>-Z-(CH<sub>2</sub>)<sub>d</sub>-W;

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W represents C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkyloxy, -CO<sub>2</sub>[C<sub>1</sub>-C<sub>8</sub> alkyl], -CONR<sup>4</sup>R<sup>5</sup>, a phenyl group, NR<sup>4</sup>R<sup>5</sup>, het<sup>2</sup> or het<sup>3</sup>, the phenyl group being optionally substituted with one or more groups independently selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, R<sup>3</sup>, OR<sup>3</sup>, CO<sub>2</sub>R<sup>3</sup>, CONR<sup>4</sup>R<sup>5</sup>, CN, SO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup> and NR<sup>3</sup>SO<sub>2</sub>Me;

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Z represents O or S(O)<sub>g</sub>;

g represents 0, 1 or 2;

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R<sup>2</sup> represents a phenyl group, optionally fused to a 5- or 6- membered aryl or heterocyclic group which may contain one or more heteroatoms selected from N, O or S; the phenyl group and the optionally fused group being optionally substituted with one or more groups independently selected from the list defined below;

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Ring A represents a 4-, 5- or 6- membered saturated heterocyclic group containing at least one N;

Ring B represents a phenyl group or het<sup>1</sup>, each group being optionally substituted with one or more groups independently selected from the list defined below;

R<sup>7</sup> independently represents H, C<sub>1</sub>-C<sub>8</sub> alkyl, OR<sup>3</sup>, -(CH<sub>2</sub>)<sub>6</sub>-R<sup>3</sup> or -(CH<sub>2</sub>)<sub>7</sub>-O-(CH<sub>2</sub>)<sub>6</sub>-R<sup>3</sup>;

at each occurrence R<sup>3</sup> independently represents H, C<sub>1</sub>-C<sub>6</sub> alkyl optionally substituted by Y,  
5 -(CH<sub>2</sub>)<sub>9</sub>-[C<sub>3</sub>-C<sub>8</sub> cycloalkyl], phenyl, benzyl, pyridyl or pyrimidyl;

at each occurrence R<sup>4</sup> and R<sup>5</sup> independently represent H, C<sub>1</sub>-C<sub>6</sub> alkyl (optionally substituted with C<sub>1</sub>-C<sub>6</sub> alkyloxy), (CH<sub>2</sub>)<sub>9</sub>CO<sub>2</sub>-[C<sub>1</sub>-C<sub>6</sub> alkyl], -SO<sub>2</sub>Me, -(CH<sub>2</sub>)<sub>9</sub>-[C<sub>3</sub>-C<sub>8</sub> cycloalkyl], SO<sub>2</sub>Me, phenyl, benzyl, pyridyl or pyrimidyl; or R<sup>4</sup> and R<sup>5</sup> together with the N  
10 atom to which they are attached represent a heterocyclic group of from 3 to 8 atoms;

Y independently represents a phenyl group, NR<sup>4</sup>R<sup>5</sup> or het<sup>4</sup>, the phenyl group being optionally substituted with one or more groups independently selected from halogen, CF<sub>3</sub>, OCF<sub>3</sub>, R<sup>4</sup>, OR<sup>4</sup>, CO<sub>2</sub>R<sup>4</sup>, CONR<sup>4</sup>R<sup>5</sup>, CN, SO<sub>2</sub>NR<sup>4</sup>R<sup>5</sup>, NR<sup>4</sup>SO<sub>2</sub>Me and -NR<sup>4</sup>R<sup>5</sup>;

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het<sup>1</sup> represents a 4-, 5- or 6- membered saturated, or unsaturated, heterocyclic group containing at least one N (but which may also contain one or more O or S atoms);

het<sup>2</sup> represents a 4-, 5-, 6- or 7- membered saturated, or unsaturated, heterocyclic group  
20 containing at least one N (but which may also contain one or more O or S atoms), optionally substituted with one or more groups independently selected from the list defined below;

het<sup>3</sup> represents a 4-, 5-, 6- or 7- membered saturated, or unsaturated, heterocyclic group  
25 containing at least one O (but which may also contain one or more N or S atoms), optionally substituted with one or more groups independently selected from the list defined below;

het<sup>4</sup> represents a 4-, 5-, 6- or 7- membered saturated or unsaturated heterocyclic group  
30 containing at least one N (but which may also contain one or more O or S atoms), optionally substituted with one or more groups independently selected from the list defined below;

substituents for R<sup>2</sup>, Ring B, het<sup>1</sup>, het<sup>2</sup>, het<sup>3</sup> and het<sup>4</sup> are independently selected from the  
35 following list: halogen, CF<sub>3</sub>, OCF<sub>3</sub>, R<sup>3</sup>, -(CH<sub>2</sub>)<sub>6</sub>-SO<sub>2</sub>Me, -(CH<sub>2</sub>)<sub>6</sub>-OR<sup>3</sup>, -(CH<sub>2</sub>)<sub>6</sub>-CO<sub>2</sub>R<sup>3</sup>, -

$(\text{CH}_2)_e\text{-CONR}^4\text{R}^5$ ,  $-(\text{CH}_2)_e\text{-CN}$ ,  $-(\text{CH}_2)_e\text{-SO}_2\text{NR}^4\text{R}^5$ ,  $-(\text{CH}_2)_e\text{-NR}^3\text{SO}_2\text{Me}$ ,  $-(\text{CH}_2)_e\text{-COR}^3$ ,  $-(\text{CH}_2)_e\text{-OCOR}^3$ ,  $-(\text{CH}_2)_e\text{-NHCOR}^3$ ,  $-(\text{CH}_2)_e\text{-NR}^3\text{COR}^6$  and  $-(\text{CH}_2)_e\text{NR}^4\text{R}^5$ ;  
 at each occurrence  $\text{R}^6$  independently represents H,  $\text{C}_1\text{-C}_6$  alkyl optionally substituted by Y,  
 $-(\text{CH}_2)_g\text{[C}_3\text{-C}_8\text{ cycloalkyl]}$ , phenyl, benzyl, pyridyl or pyrimidyl;

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a and b independently represent 0 or 1;

c, d, e and g independently represent 0, 1, 2, 3 or 4;

10 f independently represents 1, 2, 3 or 4;

provided that:

(i) a + b cannot equal 0; and

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(ii) provided that when  $\text{R}^1$  represents  $-(\text{CH}_2)_c\text{-Z-(CH}_2)_d\text{-W}$  and W represents  $\text{NR}^4\text{R}^5$  or any N linked heterocyclic group then d must not be 0 or 1; and

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(iii) provided that when  $\text{R}^2$  represents a phenyl group substituted by a group of formula  $-(\text{CH}_2)_e\text{OR}^3$ ,  $-(\text{CH}_2)_e\text{-CO}_2\text{R}^3$  or  $-(\text{CH}_2)_e\text{OCOR}^3$ ; or  $\text{het}^1$  and/or  $\text{het}^2$  are substituted by a group of formula  $-(\text{CH}_2)_e\text{OR}^3$ ,  $-(\text{CH}_2)_e\text{-CO}_2\text{R}^3$  or  $-(\text{CH}_2)_e\text{OCOR}^3$ ; or

when  $\text{R}^7$  represents  $-\text{OR}^3$  or  $-(\text{CH}_2)_f\text{-O-(CH}_2)_e\text{-R}^3$  and e is 0; or

when W represents a phenyl group substituted with  $-\text{OR}^3$  or -

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$\text{CO}_2\text{R}^3$ ; and

$\text{R}^3$  represents an alkyl group substituted with Y, and Y represents  $\text{NR}^4\text{R}^5$  or an N-linked  $\text{het}^3$ ;

then  $\text{R}^3$  must represent  $\text{C}_2\text{-C}_6$  alkyl substituted with Y.

30 2. A compound according to claim 1, wherein  $\text{R}^2$  is a phenyl group optionally substituted with one or more groups selected from halogen or  $-(\text{CH}_2)_e\text{-OR}^3$ .

3. A compound according to claim 1 or claim 2, wherein ring A is selected from piperidindiyl, piperazindiyl, azetidindiyl or pyrrolidindiyl.

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4. A compound according to claim 3, wherein ring A is piperidindyl.
5. A compound according to any of the preceding claims, wherein Z is O.
6. A compound according to any of the preceding claims, wherein het<sup>1</sup> is selected from  
5 optionally substituted pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl, triazinyl, triazolyl, tetrazolyl, pyrrolyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, thiazolyl, piperidinyl, piperazinyl, azetidiny, morpholinyl, 2-oxa-5-aza-bicyclo[2.2.1]heptanyl or pyrrolidinyl.
7. A compound according to any claim 6, wherein het<sup>1</sup> is selected from pyridinyl or  
10 pyrimidinyl, optionally by R<sup>3</sup>.
8. A compound according to any of the preceding claims, wherein het<sup>2</sup> is selected from substituted or unsubstituted pyridinyl, pyrimidinyl, pyrazinyl, pyridazinyl, triazinyl, triazolyl, tetrazolyl, pyrrolyl, pyrazolyl, imidazolyl, oxazolyl, isoxazolyl, thiazolyl, piperidinyl,  
15 piperazinyl, N-methyl piperazinyl, azetidiny, morpholinyl, 2-oxa-5-aza-bicyclo[2.2.1]heptanyl or pyrrolidinyl.
9. A compound according to claim 8, wherein het<sup>2</sup> is selected from imidazolyl, piperidinyl, piperazinyl, N-methyl piperazinyl, azetidiny, morpholinyl, 2-oxa-5-aza-  
20 bicyclo[2.2.1]heptanyl or pyrrolidinyl.
10. A compound according to any of the preceding claims, wherein a is 1 and b is 0.
11. A compound according to claim 1, which is selected from  
25 (S)-4-[5-Butyl-4-(1-phenyl-ethyl)-4H-[1,2,4]triazol-3-yl]-3,4,5,6-tetrahydro-2H-[1,2']bipyridinyl;  
2-[4-(4-Benzyl-5-isobutyl-4H-[1,2,4]triazol-3-yl)-piperidin-1-yl]-pyrimidine;  
(S)-4-[5-Methyl-4-(1-phenyl-ethyl)-4H-[1,2,4]triazol-3-yl]-3,4,5,6-tetrahydro-2H-[1,2']bipyridinyl;  
30 4-[4-Benzyl-5-butyl-4H-[1,2,4]triazol-3-yl]-3,4,5,6-tetrahydro-2H-[1,2']bipyridinyl;  
2-[4-(4-Benzyl-5-isopropyl-4H-[1,2,4]triazol-3-yl)-piperidin-1-yl]-pyrimidine;  
2-[4-(4-Benzyl-5-cyclopropyl-4H-[1,2,4]triazol-3-yl)-piperidin-1-yl]-pyrimidine;  
(S)-2-[4-[5-Methyl-4-(1-phenyl-propyl)-4H-[1,2,4]triazol-3-yl]-piperidin-1-yl]-  
pyrimidine;  
35 2-[4-(4-Benzyl-5-propyl-4H-[1,2,4]triazol-3-yl)-piperidin-1-yl]-pyrimidine;

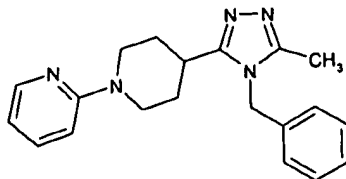
**Example 16:** 4-(4-Benzyl-5-morpholin-4-ylmethyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl

<sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD): δ 1.74 (m, 2H), 1.88 (m, 2H), 2.21 (m, 4H), 2.82 (m, 2H), 2.99 (m, 1H), 3.53 (m, 4H), 3.62 (s, 2H), 4.29 (m, 2H), 6.63 (m, 1H), 6.80 (d, 1H), 7.13 (d, 2H), 7.38 (m, 3H), 7.54 (m, 1H), 8.06 (d, 1H).  
 LRMS: m/z APCI 419[M+H]<sup>+</sup>  
 Found; C, 68.53; H, 7.25; N, 19.79; C<sub>24</sub>H<sub>30</sub>N<sub>6</sub>O requires C, 68.87; H, 7.22; N, 20.08%.

**Example 17:** 4-(4-Benzyl-5-benzyloxymethyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl

<sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD): δ 1.68 (m, 2H), 1.84 (m, 2H), 2.81 (m, 2H), 2.98 (m, 1H), 4.26 (m, 2H), 4.53 (s, 2H), 4.67 (s, 2H), 5.35 (s, 2H), 6.64 (m, 1H), 6.81 (d, 1H), 7.13 (m, 2H), 7.31 (m, 8H), 7.54 (m, 1H), 8.03 (d, 1H).  
 LRMS: m/z APCI 440[M+H]<sup>+</sup>  
 Found; C, 72.67; H, 6.67; N, 15.87; C<sub>27</sub>H<sub>29</sub>N<sub>5</sub>O 0.3 H<sub>2</sub>O requires; C, 72.88; H, 6.71; N, 15.74%.

**Example 18:** 4-(4-Benzyl-5-methyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl



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The piperidine from preparation 32 (200 mg, 0.6 mmol) was mixed with 2-chloropyridine (60 μl, 0.6 mmol) and diisopropyl ethylamine (310 μl, 1.8 mmol) in N-methylpyrrolidinone (5 ml) and the mixture was heated to 140°C for 18 hours. The reaction mixture was cooled to room temperature, added to water (150 ml) and acidified with 2N hydrochloric acid. The aqueous solution was washed with ethyl acetate (3x100 ml), basified with solid sodium carbonate, filtered through Hyflo Super Cel® and extracted with ethyl acetate (3x20 ml). The combined organic layers were dried over sodium sulphate and evaporated under reduced pressure. The residual orange oil was purified by chromatography on silica gel using methanol in dichloromethane as eluant (6:94) to give the title compound as an orange oil (10 mg).

30

**Example 16:** 4-(4-Benzyl-5-morpholin-4-ylmethyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl

<sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD): δ 1.74 (m, 2H), 1.88 (m, 2H), 2.21 (m, 4H), 2.82 (m, 2H), 2.99 (m, 1H), 3.53 (m, 4H), 3.62 (s, 2H), 4.29 (m, 2H), 6.63 (m, 1H), 6.80 (d, 1H), 7.13 (d, 2H), 7.38 (m, 3H), 7.54 (m, 1H), 8.06 (d, 1H).

LRMS: m/z APCI 419[M+H]<sup>+</sup>

Found; C, 68.53; H, 7.25; N, 19.79; C<sub>24</sub>H<sub>30</sub>N<sub>6</sub>O requires C, 68.87; H, 7.22; N, 20.08%.

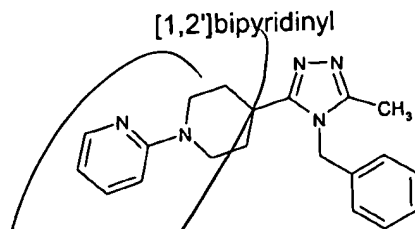
**Example 17:** 4-(4-Benzyl-5-benzyloxymethyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl

<sup>1</sup>H NMR (400MHz, CD<sub>3</sub>OD): δ 1.68 (m, 2H), 1.84 (m, 2H), 2.81 (m, 2H), 2.98 (m, 1H), 4.26 (m, 2H), 4.53 (s, 2H), 4.67 (s, 2H), 5.35 (s, 2H), 6.64 (m, 1H), 6.81 (d, 1H), 7.13 (m, 2H), 7.31 (m, 8H), 7.54 (m, 1H), 8.03 (d, 1H).

LRMS: m/z APCI 440[M+H]<sup>+</sup>

Found; C, 72.67; H, 6.67; N, 15.87; C<sub>27</sub>H<sub>29</sub>N<sub>5</sub>O 0.3 H<sub>2</sub>O requires; C, 72.88; H, 6.71; N, 15.74%.

**Example 18:** 4-(4-Benzyl-5-methyl-4*H*-[1,2,4]triazol-3-yl)-3,4,5,6-tetrahydro-2*H*-[1,2']bipyridinyl



The piperidine from preparation 32 (200 mg, 0.6 mmol) was mixed with 2-chloropyridine (60 μl, 0.6 mmol) and diisopropyl ethylamine (310 μl, 1.8 mmol) in N-methylpyrrolidinone (5 ml) and the mixture was heated to 140°C for 18 hours. The reaction mixture was cooled to room temperature, added to water (150 ml) and acidified with 2N hydrochloric acid. The aqueous solution was washed with ethyl acetate (3x100 ml), basified with solid sodium carbonate, filtered through Hyflo Super Cel® and extracted with ethyl acetate (3x20 ml). The combined organic layers were dried over sodium sulphate and evaporated under reduced pressure. The residual orange oil was purified by chromatography on silica gel using methanol in dichloromethane as eluant (6:94) to give the title compound as an orange oil (10 mg).